In the Claims:

1. (Original) Apparatus for the determination of loads on fiber composite components (1), especially of vehicle and aircraft parts, whereby the components (1) is provided with a prescribable number of sensor elements (3) for the determination of strains, which are connected to an evaluating apparatus (4), characterized in that the sensor elements are embodied as strain gages (3) and are integrated into the fiber composite component (1).

2. (Original) Apparatus according to claim 1, characterized in that this is embodied as a testing or monitoring apparatus, whereby at least two or a plurality of strain gages (3) are integrated into the fiber composite components at prescribed spacing distances, whereby the strain gages detect strains caused by material stresses at least on the damage relevant component surfaces and supply these as electrical signals to a central evaluating apparatus (4).

Claims **3 to 12** (Canceled)

13. (Original) Sensor element for the determination of strains in fiber composite components (1), which is embodied as a strain gage (3) and consists of a conventional measuring

grid (5) with a carrier layer (6) and an upper cover layer (7), characterized in that connecting pins (8) arranged perpendicularly to the measuring grid (5) are provided as electrical connection points, and that the upper cover layer (7) of the foil strain gage (3) is embodied like the carrier layer (6) thereof.

14. (Original) Sensor element according to claim 13, characterized in that a strain relief (10) of the measuring grid material is provided between the end points of the measuring grid (5) and the connecting pins (8), wherein the strain relief prevents a measured value falsifying resistance influence of the supply lines in connection with large material strains in the fiber composite material.

Claims **15 to 20** (Canceled).

[REMARKS FOLLOW ON NEXT PAGE]